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ABSTRACT

The paper considers whether precise control over the actions, thoughts, emotions, and desires of individuals is desirable. New technological methods for controlling human behavior enable systematic manipulation of people and promise an even greater degree of manipulation in the near future. Arguments for and against behavior control are presented. On the favorable side, social problems involving motivation and incentive could be solved by behavior change. On the negative side, many psychologists and other individuals fear totalitarian technocracy and dehumanization. Three divisions of behavior control are identified: (1) control by information received from a patient in psychotherapy through the use of insight or action therapy; (2) control by information through hypnosis, conditioning, and electronics; and (3) control by coercion through drugs and surgery. The two major types of conditioning are classical, which deals with control of involuntary behavior, and instrumental, which deals with systematic control of voluntary behavior. Five conditioning techniques are discussed, involving punishment, reward, reinforcement, and desensitization. The paper concludes with the prediction that the capacity for behavior control will continue to grow. (Author/DB)

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PSYCHOLOGICAL AND PHYSIOLOGICAL ALTERNATIVES IN THE CONTROL OF HUMAN COMMUNICATIVE BEHAVIOR

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Psychological and Physiological Alternatives In The Control of Human Communicative Behavior

The history of human development has seemingly been a continual effort to exert control. More specifically, man has attempted to gain control over his environment. In the past, the majority of these attempts have utilized either force or persuasion as a means of achieving this end, often with unsuccessful results. Today new methods are being discovered that will soon enable more precise control over the actions, thoughts, emotions, and desires of individuals. Many of these methods have come about as outgrowths from research in other fields, not as a conscious effort to produce a technology for controlling behavior. Nevertheless, the technology for controlling behavior which has evolved, enables the systematic manipulation of people to a high degree and promises an even greater degree of manipulation in the near future.[1]

With the growth of the ability to control behavior, the question arises as to whether such control is good or even desirable. On the favorable side, this ability to manipulate behavior provides one viable solution to many of the problems plaguing our society. A great many of these problems involve motivation and incentive. They involve social organizations and responsibility and problems of attitude and prejudice. Problems stemming from all of these reasons are presently plaguing society as population increases and life becomes more complex. Solutions to these problems are becoming necessary to future survival. One alternative in solving these problems is changing the behavior of

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individuals. Behavior control technology would allow us to make these changes.

Aside from these favorable aspects, there also exists a great deal of objection to and fear of behavior control. Such a proposition arouses intense annoyance and anxiety in a number of people, psychologists included, who for sound reasons, intensely dislike the idea of a "totalitarian technocracy." These people see the concepts of control and "despotism" as ontologically identical. From this viewpoint behavior control can only lead to a "mass society" which would be controlled and manipulated by those with the requisite knowledge. George Orwell has portrayed this possibility in his shocking novel, 1984.[2] He wrote of a "war-oriented" totalitarian society in which reality is sedulously and continually reshaped to fit a preconceived doctrine, where every act is controlled, and even thought is replaced by 'doublethink.'[3] Along these lines is the most popular argument against behavior technology. This argument posits that the deliberate control of human behavior is immoral because it results in the dehumanization of man.[4] Anything that prevents an individual's ability to make decisions or choices is said to be objectionable precisely because it does so; the exercise of choice or decisions is seen as the heart of morality, which in turn is considered an essence of humanity. Since the imposition of control is the very antithesis of choice, it dehumanizes. Furthermore, man is morally obligated, above everything, to exercise his human attributes. He should, by no means, give support to an enterprise which surpresses his attributes.

This argument suggests that being human means something quite

unlike being an animal. Leslie Farber attacks one increasingly popular, if still primitive, technology of behavior control:

> "The moral imagination to consider such matters as good and evil, including of course the behavior associated with these human realities, is not a capacity we share with animals. To treat an animal as though he possessed this capacity is merely silly, but to treat a human being as though he were only his behavior is, I am afraid, wicked."[5]

Thus, behavior control reduces man to more animal existence, denying his "moral imagination," and is therefore inherently evil.

The most successful behavior control techniques that have been employed have almost always been psychological. A number of more radical behavior control measures including murder, torture, jail, and drugs have been implemented. For the most part these exceptions are relatively rare and have have only limited worth. All of the controls in use till now have developed from accidental discoveries of the potential power that exists in the manipulation of habit and conviction, and in the appeal to fear and desire, the latter being most important. "It is more from believing they have something to gain than from fearing they have everything to lose that subordinates sustain the power of chieftains over the long run.[6]

In examining the tools utilized in behavior control, Perry London suggests three distinct divisions: -1) control by information: psychotherapy; 2) control by information: hypnosis, conditioning, and electronic tools; and 3) control by coercion: assaults, drugs, and surgery.[7] Control by information involves selection of the information to be processed by one's senses so that the individuals' mentalities will guide the individuals in some desired direction. Control by information is very well known and includes most of the communication and persuasion

methods that our civilization has regarded as legitimate, ranging from propaganda to education. It also includes the more esoteric methods already mentioned — psychotherapy, hypnosis, and conditioning techniques.

Control by coercion deals with the manipulation of the physical mechanisms which underlie one's senses so he will respond in a particular manner regardless of the information he receives.

This is achieved, by and large, by drugs and surgery. Drugs, although generally not thought of as behavior control devices, are often used as such. Surgery, also not usually connected with behavior control, has been utilized to a certain degree in this area.

This is especially prevalent in recent times since electronic minaturization and modern brain mapping have made it more practical. London justifies his use of the term "coercive" suggesting the following:

> "Because they work directly on bodily processes, I have called drug and surgical controls coercive. This does not so much mean that their use leaves its victim no choice of how to act as it means that since they work directly on body processes, their physical effect is fairly certain."[8]

Psychotherapy is a very widely applied means of behavior control. There are numerous schools of psychotherapy, each headed by psychiatrists, psychologists, and social workers. Several attempts have been made to unify the obvious diversity found among the various schools of psychotherapy. Such attempts have been made by Schofield in 1964; London in 1969; and Rogers in 1942.

Aside from numerous formal schools, there exist many more "semi-official" or "unofficial" types of psychotherapy conducted by clergymen, marriage counselors, leaders of Alcholics Anonymous, Synanon, and other such entities.

The aim of psychotherapy, no matter what form it takes, is ultimately the control of behavior. These control techniques are utilized when the individual is considered mentally deranged, diseased, disturbed, or in some way deviant. The scope of problems for which people seek psychotherapeutic help covers an extremely wide range. What all these problems have in common is that they are all classified as behavior problems in the widest sense — that is to say, they are all problems of action, emotion, and attitude, rather than problems of purely physiological functioning.

Although the scope of these problems is vast, the variety of treatment operations are much more limited. London divides these into insight therapies and action therapies.9

The basic premise that guides all insight therapies is that behavior is dictated by motives. This means that deviant or abnormal behavior is the result of peculiarities intrinsit to the individual. To treat such disorders, the therapist attempts to seek out the inner states that underlie the surface difficulties and, by bringing them out into the open, loosen the bond between them and the abnormal behavior they produce. In all insight therapy the patient himself must assume responsibility for virtually all the subject matter of the therapy sessions, although technique may vary from therapist to therapist.

Action therapy, instead of concentrating mainly on the motives that produced a person's symptoms, concentrates on the symptoms proper without much concern over their origins or meanings. Instead of placing responsibility for treatment with the patient, it is placed almost entirely on the therapist. In action therapy a specific method of

attack is devised; then, the method is executed and finally; the results are examined. There are several specific methods of attack. Two of these are "counterconditioning" and "extinction". In counterconditioning,one feeling or behavior is substituted for another that is antithetical to it. Extinction methods work by attacking the problems head-on, rather than by replacing old behavior with new behavior.

In discussing behavior control by hypnosis, it may be said that several mental functions -- learning, memory, and imagination -- may be affected by it with useful practical results. Among the more dramatic effects of hypnosis are those which result in emotional changes in response to suggestion. In addition, hypnosis can be used to enhance performance and effect physiology. Greater endurance, improved muscle coordination, and sustained attention over long periods are some of the effects. Hypnosis is also used in psychotherapy. Hypnotism affects behavior as follows:

1. The hypnotized individual exhibits greater muscular strength and resistance to fatigue than he has in the waking state.

2. The subject can behave as if he were anaesthetized, either in a specific area or over his whole body. Such an application depends, of course, on the individual being a suitable hypnotic subject.

3. Hypnotism can be used to produce physiological changes ordinarily completely beyond the conscious control of the individual. The very fact that they can be created at all is of considerable significance, since they serve as dramatic evidence of the power of psychological influences on the formation of strictly physical symptoms.

4. Persons who are hypnotized usually will have hallucinations if they are instructed to do so by the hypnotist.

5. Hypnosis can lead to a misperception of the present world, and it can be used to change the individual's perception of himself in time. That is, the hypnotized person can regress to an earlier stage of life. This phenomenon has been of great interest to scientists trying to formulate a theory of personality as well as to psychotherapists, since both are concerned with the formation of personality structure, which can be directly studied and experimentally manipulated through hypnotic regression.

6. Hypnotized persons will perform a variety of actions after coming out of the hypnotic trance, if they are told to do so while still in it. This phenomenon is particularly interesting since it provides us with the experimental equivalent of the process by which unconscious influences are translated into behavior under normal social conditions.

7. Perhaps the most sinister application of hypnotism is its use to make subjects perform acts that are criminal or dangerous to themselves and others.

Conditioning methods are extremely important in behavior control. These methods are hypothetically useful for learning to occur or to stop occuring regarding any behavior. Learning seems to be the basis of all skills, habits, and opinions. A number of professionals suggest that these conditioning methods underlie such things as psychosomatic illness, voodoo, death, religious conversion, brainwashing, hypnosis and psychotherapy.[10]

In general, two types of conditioning have been distinguised. These types are referred to respectively as "classical" and "instrumental" or "operant" conditioning. The latter was first described by Thorndike in 1898, the former by Pavlov in 1903. There are a number of significant distinctions between them. The one critical difference in terms of behavior control is that classical conditioning involves

the control of internal, often involuntary behavior such as emotion, mood or sensation, and the functioning of smooth muscles such as the stomach, blood vessels, and in part the heart, whereas instrumental conditioning, on the other hand, deals with the systematic control of voluntary behavior, which includes the teaching of social and intellectual skills,and of voluntary motor and muscle activity.[11]

Various conditioning techniques varying in character and sophistication have been utilized. These techniques can be classified as five distinct types. The first type uses punishment to eliminate unwanted behavior. Undesirable behavior is punished when it occurs, and, as the undesirable behavior reduced, so is the punishment.

In the second technique there is practice without either reward or punishment. This is basically an extinction procedure. The undesirable behavior is consciously repeated until it slowly extinguishes itself.

The third method is the direct use of instrumental conditioning. Particular behavior is rewarded until it is firmly established, then intermittent reinforcement is administered to maintain the behavior.

The forth technique is merely an extension of the third. Instrumental conditioning is used to establish certain behavior. After it has been established, all undesirable responses are eliminated.

Finally, the fifth process involves progressive desensitization to stimuli that evoke undesirable responses.

Conditioning methods do not necessarily require ancillary machinery, but such machinery gives an enormous boost to these methods. Classical conditioning has always used a large repertoire of laboratory

apparatus. Operant conditioning uses more simple machinery such as slot-machines and bubble-gum dispensers to provide rewards, as well as a number of complex switches, relays, and automatic counters and timers to program them on exact schedules without human intermediation. In the near future a great surge of additional boosts to conditioning technology will come from other fields, mainly electronics.[12]

There are a number of other developing electronic technologies that contribute to behavior control by way of information. Two important classes exist. These are control by communication of formation, and control by elimination of information. The first is represented by computer therapy; the second by diagnostic machines, data banks, and electronic bugs.

The third division, as previously stated is control by coercion. Control by coercion includes three subdivisions; namely: assault, drugs and surgery.

Generally, assault therapies or "shock treatments" as they are more commonly known, are used with persons whose disabilities are serious enough to require hospitalization. However electric-shock treatments, the most common of the assault therapies, is also administered in offices on certain occasions. Other assault therapies involve the injection of Metrazol, a synthetic camphor preparation, and the injection of insulin.

Until 1950, electroconvulsive therapy was widely used, however with advent of various drugs, it, as well as the two mentioned chemical treatments, have for the most part been replaced.[13]

Drugs are the second sub-division in the method of coercive

behavior control. The beginnings of the use of control drugs probably dates back to the introduction of tranquilizers into widespread psychiatric use in the early 1950's. Presently, drugs are certainly the most commonly used form of medical treatment for psychological disabilities, and they are becoming more popular all the time. They have caused a true revolution in the management of mental disorders. The use of variant drugs, with differing powers over mood, perception, and activity, has spread far beyond the confines of psychiatry, medicine, bourgeois propriety, and the law.

The final subdivision of coercive behavior control is that of surgery. Surgery involves brain-implantation which makes it possible to retain the structure of a brain center while an experimenter turns its functions on and off. Most implant experiments have been done with animals, and despite similar results in different species, their relevance to human contexts remains unsure. Nevertheless, brain-implant controls have already been used successfully on people, "experimentally" or "clinically," to change speech patterns; relieve epileptic seizures; diagnose and treat intractable pain; control some involuntary movements; and induce and block hostile, aggressive impulses and an assortment of thought patterns, hallucinations, laughter, memories, sexual expressions, and pleasant shifts of moods - as well as physiological functions like heart rate, urination, muscle contraction, hearing, and blood pressure.[14] With further research even more behavior controls will undoubtedly be discovered. "As 1984, draws near, it appears that George Orwell's fears for Eastern democracy may have been too pessimistic, or at least premature, but is also clear

that conceits of the technology by which tyranny could impress its will upon men's minds were much too modest. (We have been schooled to readiness for all these things and will demand their benign use regardless of their potential risk. The capacity for control will continously grow, evolving from benevolence)".[15]

FOOTNOTES

1. P. Worchel and D. Byrne, Personality Change (Texas: Wiley, 1964), p. 12.

2. G. Orwell, Nineteen eighty-four; text, sources, criticism (New York: Harcourt, Brace, and World, 1963).

3. "doublethink" in G. Orwell, 1984 (New York: Harcourt, Brace, and World, 1963).

4. P. London, Behavior Control (New York: Harper and Row, 1969), p. 12.

5. Ibid, p. 13.

6. Ibid, p. 13.

7. Ibid, p. 20.

8. Ibid, p. 28.

9. Ibid, p. 43.

10. Ibid, pgs. 83-84.

11. Ibid, pgs. 85-86.

12. Ibid, p. 97.

13. R. Kovacs, Electrotherapy and Light Therapy (Philadelphia: Leo and Febiger, 1945).

14. P. London, Behavior Control (New York: Harper and Row, 1969), p. 146.

15. G. Orwell, nineteen eighty-four, text source, criticism (New York: Harcourt, Brace, and World, 1963), p. 7.